

Climatological Data for August, 1909.
DISTRICT No. 3, OHIO VALLEY.

FERDINAND J. WALE, District Editor.

TEMPERATURE.

The temperature was slightly below normal over central and western Kentucky, the northern portion of Tennessee, and in the western portions of Pennsylvania and New York, and somewhat below normal in West Virginia, the southwestern portion of Virginia and in the northern portion of Indiana; elsewhere over the district the temperature averaged somewhat higher than usual for August. The highest average temperatures were over the northern portion of Alabama, the western part of Kentucky, eastern Illinois, the greater portion of Indiana, and in the immediate Ohio Valley as far east as Louisville, Ky.

Over the district, as a whole, there were several warm and several cool periods, the most marked warm periods being about the 8-10th and 24-28th. Except in Ohio and over the Allegheny Mountain section, maximum temperatures of 100° and over, occurred at many stations in the several States. Marked cool periods were the 21st-23d and the last three days of the month. Light frost occurred in Pocahontas County, W. Va., and at Banners Elk, N. C. Also in some of the northern and western counties of Pennsylvania, and in some of the western localities of New York, more or less heavy frost was reported. There was no serious damage done by frost, although it was reported as killing at a few places.

In the period 22-23d, there were quite a few minimum temperatures below 40° in the mountain section, and between 40° and 45° in other parts of the district.

PRECIPITATION.

The rainfall for the month was extremely variable, ranging all the way from less than half an inch to over 10 inches. As a rule, the greater part of the rain occurred during the first half of the month, and in the period 26-29th. The greatest amounts, ranging from 8 to 10.96 inches, occurred in the upper drainage area of the Tennessee River and in a small section of northeastern Ohio. Amounts ranging from 6 to 8 inches occurred in a few places in the central part of Tennessee, the northwestern part of Georgia, the western part of North Carolina, the upper reaches of the Youghiogheny in Pennsylvania and Maryland, and on the headwaters of the Wabash in Indiana. Over the greater portions of Illinois, western Kentucky, western Tennessee, northern Alabama, and the watersheds of the Allegheny in Pennsylvania and the Ohio and Great Kanawha in West Virginia, the monthly amounts were less than 2 inches. The deficiency was most marked in Illinois, southwestern Indiana, and the western drainage areas of the Tennessee and Cumberland rivers, where the monthly amounts were generally below an inch, and at many places less than 0.3 inch. The deficiency extended up the Ohio Valley as far as

Louisville. Over the rest of the district, other than the sections named, the amounts varied between 2 and 4.5 inches.

The rainfall was heaviest and most general in the period 12-17th, especially the 14-16th, when there were a great many heavy showers and some excessive twenty-four-hour rainfalls. The latter were mostly in Ohio, Kentucky, West Virginia, central Tennessee, and northern Indiana. Over Tennessee, North Carolina, the western portion of Virginia, and the States bordering the Ohio River, except Pennsylvania, by far the greater part of the rain occurred during the first 16 or 17 days of the month, while in the western portions of New York, Pennsylvania, and Maryland, there was little or no rain until the 14th. In the period from the 18th to 25th, inclusive, there was very little rain in any part of the district.

In Tennessee, the dryness was pronounced after the 18th. In Illinois, everything was badly burned, there being only an average of 3 or 4 rainy days, while there were about 23 clear days. Similar conditions existed over the southwestern portion of Indiana. In western Pennsylvania the deficiency was marked, but frequent showers in the middle and last parts of the month kept the surface soil comparatively moist, and the effects of the droughty conditions which lasted over from July were not particularly severe. The most notable effect of the small amount of rain was evidenced in the low stages of rivers and wells.

There were a number of locally excessive rainfalls, most of which occurred on the 15th and 16th. The greater number of these were in Ohio, over the watershed of the Muskingum. The following heavy twenty-four-hour amounts were reported from that locality: Bangorville, 3.59 inches; Granville, 3.78; Gratiot, 4.29; Killbuck, 2.88; McConnellsburg, 3.60; Milfordton, 5.33; and Philo, 4.93. Other excessive amounts in Ohio were 2.85 inches at Marietta; 3.18, at Marion; and 3.32 at Sidney. The following additional notable twenty-four-hour rainfalls were reported: Tennessee watershed: 2.93 inches, at Asheville, and 3.28, at Bryson City, 4.00, at Springdale, and 4.50, at Tazewell. On the Wabash watershed: 4.03 inches, on the 12th, at Lafayette, and 3.15, the 27th, at Kokomo. In Kentucky: at Farmers, on the Licking watershed, 3.14 inches, on the 13th; Maysville, on the Ohio, 2.63, on the 15th; and Shelby City, on the Kentucky watershed, 2.90 inches on the 1st. At Parkersburg, 3.60 inches occurred on the 14-15th, which was the heaviest ever recorded at that station.

Considerable damage was done in Ohio by the heavy rains and also by lightning. Scattered, severe local thunderstorms occurred also in the middle of the month in Indiana, Illinois, and Kentucky, resulting in loss from both lightning and heavy rains. Several hailstorms of minor importance passed over some of the north-central counties of West Virginia on the afternoon of the 20th. In the main, however, comparatively little damage was done by storms in the district during the month.

TABLE 1.—Climatological data for August, 1909. District No. 3, Ohio Valley.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.						Sky.	Prevailing wind direction.	Observers.		
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall melted.	Number of rainy days, .1 inch or more.	Number of partly cloudy days.	Number of cloudy days.			
<i>New York.</i>																				
Allegany.	Cattaraugus.	1,441	3	65.8	.....	95	8	35	22	45	2.43	.....	1.02	0.0	7	17	9	nw.	Charles E. Whitney.
Bolivar.	Allegany.	1,800	13	65.4	+ 0.4	96	8	31	22	50	2.06	- 1.39	1.06	0.0	3	8	13	nw.	Lowell Andrus.	
Franklinville.	Cattaraugus.	1,598	12	65.0	- 0.6	91	8	35	22†	49	3.03	- 0.41	1.92	0.0	6	17	5	w.	John W. Kales.	
Jamestown.	Chautauqua.	1,365	19	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Olean.	Cattaraugus.	3.03	1.16	0.0	8	22	5	4	w.	John W. Alles.
<i>Maryland.</i>																				
Deer Park.	Garrett.	2,457	15	.....	.....	89	7	33	22	51	4.65	+ 1.18	0.93	0.0	10	.....	.....	.....	S. P. Specht.
Grantaville.	do.	2,351	15	65.4	- 1.2	87	8	39	22	35	6.67	+ 2.81	4.19	0.0	10	13	14	4	J. S. Miller.	
Oakland.	do.	2,461	9	64.9	.....	89	8	36	22	43	4.97	+ 1.31	1.02	0.0	13	14	11	6	R. E. Weber.
<i>Pennsylvania.</i>																				
Aleppo.	Greene.	1,135	8	70.4	+ 0.2	91	9†	40	22	41	2.87	- 0.51	1.44	0.0	8	21	5	sw.	J. S. Hinerman.	
Baldwin.	Butler.	1,404	3	67.8 ^a	.....	91 ^a	5	40 ^b	11	46 ^b	1.87	.....	1.07	0.0	6	19 ^a	5 ^a	w.	S. H. Templeton.
California.	Washington.	770	6	.....	.....	94	8	39	22	47	2.17	.....	1.54	0.0	7	18	12	3	Prof. E. H. Knabenshue.
Claysville.	do.	1,127	70.6	- 0.7	97	8	40	22	43	3.21	- 0.75	0.86	0.0	9	19	9	3	E. T. Buchanan.		
Derry Station.	Westmoreland.	1,172	12	70.4	- 0.7	97	8	40	22	43	2.58	- 1.07	2.08	0.0	5	16	12	3	D. M. Wineman.	
Franklin.	Venango.	955	35	67.9 ^a	- 0.8	95 ^a	7	40 ^a	11	47 ^a	1.98	- 1.60	0.67	0.0	8	.....	.....	c.	Venango Water Co.
Freepo.	Armstrong.	772	31	.....	.....	91	9	45	22	33	2.39	.....	0.91	0.0	6	14	12	5	Mrs. A. R. Burtner.
Greensburg.	Westmoreland.	1,100	1	70.2	.....	91	9	45	22	33	1.95	- 2.42	0.94	0.0	7	18	9	n.	M. W. Crownover.
Greenville.	Mercer.	950	13	69.0	+ 1.8	95	25	35	22	47	1.39	- 2.17	0.47	0.0	9	23	4	nw.	A. M. Orr.	
Grove City.	do.	1,250	2	68.2	.....	91	9	39	22	45	1.72	.....	0.47	0.0	7	17	10	4	H. W. Harmon.
Indiana.	Indiana.	1,350	12	70.2	+ 1.0	93	7	44	22	39	3.05	- 1.53	1.05	0.0	10	.....	.....	.....	Rev. J. M. Welch.
Irwin.	Westmoreland.	884	21	71.1	- 0.3	93	7	43	22	39	3.48	- 0.46	1.23	0.0	6	20	7	4	J. B. Gallagher.	
Johnstown.	Cambria.	1,184	21	70.4	+ 0.8	96	8	46	22	39	3.50	- 1.07	1.82	0.0	8	13	16	2	E. C. Lorentz.	
Lycipus.	Westmoreland.	1,420	17	70.6	- 0.4	92	8	47	22	33	2.82	- 1.37	1.17	0.0	11	11	13	nw.	Murray Forbes.	
Pittsburg.	Allegheny.	843	39	72.4	- 0.1	91	7	52	20	28	3.33	+ 0.15	1.38	0.0	9	16	10	5	U. S. Weather Bureau.	
Saegeertown.	Crawford.	1,116	18	67.4	+ 0.3	91	8	36	22	42	2.82	- 0.56	0.46	0.0	4	25	4	2	J. G. Apple.	
St. Marys.	Elk.	1,740	11	67.2	+ 0.6	91	8†	36	22	46	0.38	- 0.23	0.16	0.0	5	16	11	4	Wm. E. Wittman.	
Skidmore.	Lawrence.	1,000	5	70.4	+ 2.0	92	7	40	22	44	1.20	- 2.56	0.46	0.0	4	25	4	2	W. H. Stoner.	
Somerset.	Somerset.	2,250	53	67.8	+ 0.9	95	8	40	22†	42	5.22	+ 0.50	1.85	0.0	9	11	14	6	W. M. Schrock.	
Uniontown.	Fayette.	999	21	71.4	- 0.2	92	9	46	22	32	5.70	+ 1.32	1.77	0.0	13	4	15	12	se.	Wm. Hunt.
Warren.	Warren.	1,137	20	66.6	- 0.6	90	8	37	22	37	3.32	- 0.61	1.26	0.0	6	22	9	se.	Anna Simpson.	
<i>West Virginia.</i>																				
Aborvale.	Pocahontas.	1	65.4	.....	.....	86	25†	38	22†	40	1.97	.....	1.10	0.0	9	17	7	nw.	W. E. Arbogast.
Bancroft.	Putnam.	5	73.8	.....	.....	95	7†	51	30	37	2.33	.....	1.33	0.0	8	17	2	nw.	James Hill.
Beckley.	Raleigh.	2,440	10	70.0	- 0.1	91	28	45	22†	39	2.53	- 0.18	1.31	0.0	4	17	10	4	w.	John A. Ewart.
Ben's Run.	Pleasants.	622	6	73.2 ^a	.....	93	8†	49 ^c	22	34	4.47	.....	2.45	0.0	6	24	7	0	J. D. Riggs.
Bluefield.	Mercer.	2,563	12	70.1	- 1.5	89	23	50	22	32	5.70	+ 0.79	2.00	0.0	11	21	6	4	Agent. N. & W. Ry. Co.	
Buckhannon.	Upshur.	1,472	13	69.4	- 1.2	89	8	45	22	34	4.90	+ 1.37	1.70	0.0	9	18	8	5	H. A. Darnall.	
Cairo.	Ritchie.	667	7	72.6	- 0.4	94	9	48	22	36	4.87	.....	2.50	0.0	9	19	3	sw.	Van A. Zevely.
Central Station.	Doddridge.	900	9	69.0 ^a	- 3.0	91	8	42 ^c	22	40	4.84	+ 1.87	2.34	0.0	11	11	15	5	G. W. Sherwood.	
Charleston.	Kanawha.	598	6	75.4	.....	92	8†	53	22	31	3.68	- 0.60	1.75	0.0	5	23	4	4	R. C. Hewes.
Creston.	Wirt.	612	7	73.2	.....	93	27	50	22†	37	2.81	.....	1.13	0.0	10	13	11	2	J. M. Reed.
Cuba.	Jackson.	544	7	71.4	.....	91	8	46	22	33	3.74	+ 0.83	1.42	0.0	10	13	17	1	C. T. Perry.
Doane.	Wayne.	4	.....	.....	.....	.....	.....	.....	.....	.....	3.34	- 0.40	0.98	0.0	9	.....	.....	.....	G. W. Jude.
Elkhorn.	McDowell.	1,933	14	69.6	- 1.7	88	9†	47	22†	34	2.23	- 1.40	0.74	0.0	5	18	11	2	J. J. Lincoln.	
Elkins.	Randolph.	1,940	10	68.8	+ 0.4	88	8	47	23	35	3.20	- 0.45	1.40	0.0	13	14	8	9	U. S. Weather Bureau.	
Fairmont.	Marion.	879	4	72.4	.....	96	8	42	20	32	2.18	- 1.15	0.50	0.0	10	.....	.....	.....	H. Glenn Fleming.
Glenville.	Gilmer.	733	14	73.5	+ 0.5	94	8	50	22†	35	4.60	+ 0.84	1.07	0.0	7	13	5	13	John Holt.	
Grafton.	Taylor.	985	18	71.6	+ 0.2	92	7†	48	22†	33	3.18	- 0.40	1.31	0.0	16	16	8	7	S. W. Wilson.	
Green Sulphur Springs.	Summers.	1,600	12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	M. Gwynn.	
Hinton.	do.	1,400	13	.....	.....	.....	.....	.....	.....	.....	3.34	- 0.40	0.98	0.0	9	.....	.....	.....	R. R. Flanagan.
Huntington.	Cabell.	510	12	75.5	+ 0.8	96	28	51	22	33	1.26	- 2.41	0.46	0.0	8	16	3	12	L. H. Hutchinson.	
Lewisburg.	Greenbrier.	2,200	8	69.3	- 1.3	91	9	43	23	39	1.93	- 1.57	1.15	0.0	5	14	12	5	Geo. T. Argabrite.	
Logan.	Logan.	665	7	74.9	.....	96	27	52	22†	37	1.66	.....	0.70	0.0	9	6	25	0	H. C. Ragland.
Lost Creek.	Harrison.	1,033	11	70.9	+ 0.1	92	8†	44	22	44	4.03	+ 0.13	1.64	0.0	8	20	8	3	Allen Smith.	
Madison.	Boone.	704	4	73.9	.....	95	27	53	22†	35	1.23	.....	0.47	0.0	5	17	13	1	S. E. Bradley.
Mannington.	Marion.	967	6	71.0	.....	92	8†	43	22	46	3.00	.....	1.27	0.0	10	16	9	6	Jas. A. Morgan.
Marlinton.	Monongalia.	1,250	13	71.7	- 0.7	92	14	46	22	35	2.52	- 0.61	0.65	0.0	7	18	11	2	Horace Atwood.	
Martinsburg.	Pocahontas.	2,169	10	65.2	- 3.4	81	27	44	23	39	3.14	.....	0.0	0	21	7	3	N. C. McNeil.	
Moundsville.	Marshall.	640	6	73.0	.....	94	27	45	23	39	3.14	.....	1.82	0.0	10	23	5	3	J. E. Matthews.
New Cumberland.	Hancock.	987	9	69.7	- 1.0	91	8†	40	22	44	1.92	- 1.54	0.80	0.0	5	18	4	9	Frank S. Evans.	
New Martinsville.	Wetzel.	634	14	73.5	- 0.6	95	8	49	22	39	3.83	+ 1.12	2.36	0.0	7	26	2	3	Stephen Tully.	
Nuttallburg.	Fayette.	2,252	12	69.2	- 1.7	91	8	43	22	39	2.99	- 0.23	0.72	0.0	9	16	9	6	U. S. Weather Bureau.	
Parkersburg.	Wood.	638	21	73.0	- 0.3	93	8	52	21	31	4.37	+ 0.84	3.60	0.0	11	12	13	6	J. W. Swisher.	
Parsons.	Tucker.	1,662	7	68.3	- 1.2	89	8	45	22†	38	5.10	+ 1.91	1.50	0.0	10	15	14	2	J. D. Dadisman.	
Phillipi.	Barbour.	1,192	10	70.2	- 1.8	90	7†	47	23	41	4.08	.....	1.40	0.0	12	16	13	6	Dr. J. L. Cunningham.
Pickens.	Randolph.	2,785	16	65.8	- 1.3	83	28	44	22	32	5.79	+ 1.02	1.39	0.0	9	19	6	6	E. M. Senter.	
Pineville.	Wyoming.	1	.....	.....	.....	90													

TABLE I.—Climatological data for August, 1909. District No. 3—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.				Precipitation, in inches.				Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmeted.	Number of rainy days, .01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	Prevailing wind direction.	Observers.	
				Mean.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.												
<i>Ohio—Cont'd.</i>																							
Cincinnati.	Hamilton.	628	39	76.1	+ 0.6	95	28	57	22	27	1.82	- 1.51	0.88	0.0	8	16	11	4	w.	U. S. Weather Bureau.			
Circleville.	Pickaway.	694	15	74.2	+ 0.7	93	8†	50	23	32	2.14	- 0.10	0.57	0.0	9	16	10	5	n.	Samuel W. Courtright.			
Clarington.	Monroe.	600	7	72.4		94	9	46	23	36	3.27	+ 0.23	1.62	0.0	14	13	12	6	sw.	Col. S. Tschappat.			
Clarksville.	Clinton.	1,010	23	74.4	+ 1.2	92	25†	50	21†	38	3.66	+ 0.04	1.43	0.0	9	24	3	4	w.	E. T. M. Williams.			
Columbus (1).	Franklin.	91x	32	73.4	+ 0.4	93	8	52	31	29	2.53	- 0.69	1.91	0.0	11	16	9	6	e.	U. S. Weather Bureau.			
Columbus (2).	do.	757	27	72.2	+ 1.1	92	8	46	23	36	2.43	- 0.54	1.57	0.0	6	10	10	5	sw.	Ohio State University.			
Columbus (3).	do.	1	73.4			90	8†	51	22	27	3.31		2.51	0.0	7	11	17	3	ne.	Capt. Paul Mason.			
Columbus Reservoir.																							Superintendent.
Coshocton.	Coshocton.																						Mrs. Ada Jeffries.
Dayton (1).	Montgomery.	790	27	74.4	+ 1.0	95	28	47	22	36	3.41	+ 0.34	0.97	0.0	7	19	10	2	sw.	Edith E. L. Boyer.			
Dayton (2).	do.	16		71.6	- 0.5	92	25	42	22	40	3.90	+ 0.22	1.39	0.0	8	18	6	7	sw.	Mrs. D. D. Rist.			
Delaware.	Delaware.	987	13	71.6		95	13	46	22	37	2.59	- 1.08	1.24	0.0	10	21	8	2	nw.	L. L. Hudson.			
Demos.	Belmont.	1,325	20	72.8	+ 1.5	95	28	46	22	36	2.26	- 1.10	1.35	0.0	4	24	5	2	ne.	J. F. Dysart.			
Frankfort.	Ross.	750	17	71.9	- 0.5	93	28	46	22	45	2.75	- 0.59	0.93	0.0	13	20	6	5	nw.	O. A. Cory.			
Garretttsville.	Portage.	1,005	25	67.9	- 1.0	90	8†	35	22	40	6.13	+ 3.32	3.78	0.0	7	25	0	6	e.	S. M. Luther.			
Granville.	Gratiot.	980	23	72.2	+ 1.1	93	9	44	22	33	5.85	+ 2.77	4.29	0.0	7	20	9	2	nw.	Dr. L. E. Davis.			
Green.	Adams.	1,000	19	69.6	- 1.2	88	25	48	23	32	4.24	+ 0.67	1.70	0.0	7	18	10	3	sw.	W. B. Longstreth.			
Green Hill.	Columbiana.	500	17	74.8	+ 0.8	94	8	53	23	44	1.93	- 1.58	0.71	0.0	12	18	13	0	sw.	W. F. Kenyon.			
Greenville.	Darke.	1,135	18	67.8	- 1.1	89	8	35	22	37	2.23	- 0.95	0.90	0.0	8	16	9	6	s.	Jos. E. Bentley.			
Hillsboro.	Highland.	1,060	24	73.6	+ 3.1	92	28	49	22	37	4.30	- 1.86	0.60	0	6	12	16	3	sw.	G. A. Katzenberger.			
Ironton.	Lawrence.	575	27	75.5	+ 2.3	96	9†	49	22	36	3.45	- 0.65	1.07	0.0	7	21	8	2	sw.	Carey H. Roush.			
Jacksonburg.	Butler.	975	22	74.5	- 0.8	94	8	50	22	35	4.60	+ 1.49	1.84	0.0	10	21	7	3	ne.	James Bull.			
Kenton.	Hardin.	7	72.6			94	22	42	22	43	2.60		2.02	0.0	8	23	4	4	n.	Dr. J. B. Owsley.			
Killbuck.	Holmes.	1,087	17	70.4	- 0.8	92	22	40	22	52	4.85	+ 1.55	2.88	0.0	7	19	9	3	n.	N. S. Martin.			
Lancaster.	Fairfield.	898	14	72.0	+ 0.6	96	8	48	22	31	4.91	+ 2.78	2.00	0.0	9	25	1	5	s.	Geo W. Nowells.			
Lawshe.	Adams.	900	6	73.6		95	28	46	22	40	5.33		1.64	0.0	11	24	3	4	w.	Ruth W. Hoffman.			
McConnelsville.	Morgan.	710	26	71.8	0.0	93	9	45	22	37	4.28	+ 1.05	3.60	0.0	7	16	12	3	w.	C. H. Morris.			
Marietta.	Washington.	827	66	74.3	+ 2.4	94	8	50	22	33	3.95	+ 0.05	2.85	0.0	9	17	10	4	s.	Prof. T. D. Blasco.			
Marion.	Marion.	980	19	73.6	+ 1.1	95	26	46	31	39	5.05	+ 3.12	3.18	0.0	9	14	15	2	se.	E. H. Raffensperger.			
Milfordton.	Knox.	1,200	17	71.2	+ 0.7	90	25	44	22	40	8.78	+ 5.94	5.53	0.0	6	25	5	1	sw.	L. H. Burgess.			
Milligan.	Ferry.	875	16	70.4	- 1.5	92	9	41	21	41	3.54	+ 0.74	2.40	0.0	6	14	14	3	n.	V. C. Eyleand.			
Millport.	Columbiana.	1,145	18	69.4	- 0.5	90	8	38	22	41	3.78	+ 0.54	1.01	0.0	12	12	18	1	w.	G. F. Copeland.			
Nellie.	Coshcocton.	850	9	71.8		91	9	43	21†	39	2.46	- 1.39	1.33	0.0	4	18	11	2	e.	E. L. Gamertsfelder.			
New Alexandria.	Jefferson.	1,050	25	70.6	- 0.5	95	43	22	40	4.03	+ 0.46	1.68	0.0	10	22	8	1	nw.	Mrs. Mary K. Pennell.				
New Berlin.	Stark.	1,100	17	70.0	- 0.6	92	25	40	22	44	3.67	+ 0.15	1.45	0.0	9	23	7	1	nw.	Clayton Holl.			
New Richmond.	Clermont.	788	11	75.0	- 0.8	94	28	53	21†	33	3.14	+ 0.31	1.83	0.0	8	17	8	6	sw.	Sam. C. Scott.			
New Waterford.	Campbell.	1,053	16	69.9	+ 0.4	91	7†	37	22	46	0.76	- 2.93	0.75	0.0	2	25	6	0	sw.	C. B. Wade.			
North Lewisburg.	Trumbull.	1,095	21																			J. N. Ridenour.	
Orangeville.	Licking.	1,050	17	71.2	- 0.6	91	8	45	22	38	2.47	- 0.91	1.03	0.0	9	16	13	2	e.	L. C. Burkhalter.			
Pataksala.	Muskingum.	1,018	15	71.6	- 1.8	90	8†	48	22	33	4.54	+ 1.78	3.36	0.0	8	16	11	4	nw.	Louis Hardtla.			
Philo (1).	do.	8	72.5	0.0		94	9	46	22	33	5.53		4.93	0.0	7	21	7	3	s.	F. E. Stewart.			
Plattensburg.	Clark.	1,130	17	72.4		90	8†	48	22†	35	3.16	+ 0.57	1.38	0.0	6	20	8	3	ne.	W. G. Branch.			
Pomeroy.	Meigs.	781	26																			Dr. H. A. Schirrmann.	
Portsmouth.	Scioto.	527	79	74.2	- 0.1	92	9†	52	22	30	4.59	+ 1.11	1.12	0.0	12	16	3	12	w.	J. B. Clish.			
Rittman.	Wayne.	990	17	70.0	+ 0.7	92	25	39	22	42	5.37	+ 2.29	0.80	0	8	21	7	3	w.	T. B. Arnett.			
Shenandoah.	Richland.	1,100	18	69.6	- 0.4	92	8	39	21	42	3.21	- 0.01	1.65	0.0	8	11	20	0	ne.	H. B. Blake.			
Sidney.	Shelby.	985	15	74.2	+ 0.7	93	28	47	22	37	5.00	+ 2.39	3.33	0.0	7	19	7	5	ne.	Miss M. C. Sheridan.			
Somerset.	Perry.	1,080	11	73.1	- 0.8	92	9†	49	22	34	4.63	+ 1.44	2.40	0.0	9	20	7	4	n.	W. A. Webster.			
Springfield.	Clark.	4	70.3			93	9	41	22	42	2.84		4.35	0.0	6	9	21	1	sw.	Dr. H. R. McClintock.			
Summerfield.	Noble.	896	17	73.8	- 1.3	95	28	50	22	34	3.93	- 0.97	0.74	0.0	5	11	15	5	w.	D. D. Thomas.			
Thurman.	Gallia.	1,031	14	73.5	+ 2.5	94	10	44	22†	41	2.10	- 0.33	1.05	0.0	9	18	12	1	sw.	Prof. J. H. Williams.			
Urbana.	Champaign.	1,250	14	64.1	- 2.6	84	27	43	23	43	3.09	- 1.36	0.69	0.0	8	16	3	12	w.	M. D. McCorkle.			
Warren.	Trumbull.	12	70.2	+ 0.4		93	7	36	22	48	2.47	- 0.97	1.09	0.0	12	18	8	5	sw.	D. Lorbach.			
Waverly.	Pike.	590	27	74.2	- 0.3	96	27†	48	22	40	2.24	- 1.16	0.75	0.0	9	19	3	3	nw.	Charles Michener.			
Waynesville.	Warren.	700	25	71.4	- 1.9	88	8†	50	22†	39	4.22	+ 0.45	2.10	0.0	7	20	8	3	s.	Experiment Station.			
Wooster.	Wayne.	1,030	25	70.4	+ 1.5	89	8†	41	22	39	5.21	+ 2.11	2.09	0.0	10	19	8	4	s.	G. R. Patton.			
Youngstown.	Mahoning.										1.40		0.64	0.0	7	26	0	5	sw.	S. G. Sprague.			
Zanesville.	Muskingum.										3.78	+ 1.24	2.90	0.0	7	14	5	12	sw.	John W. Fox, sr.			
<i>Virginia.</i>	Wise.	1,540	18	72.6	+ 0.5	89	27†	53	22	39	1.53	- 3.50	0.50	0.0	5	16	14	1	w.	Agric. Experiment Sta.			
Big Stone Gap.	Montgomery.	2,170	14	67.4	- 2.9	91	27	37	23	43	3.12	- 0.97	1.13	0.0	6	17	6	8	w.	C. H. Grever.			
Bucksgarden.	Tazewell.	3,250	14	64.1	- 2.6	84	27	43	23	43	3.09	- 1.36	0.69	0.0	8	16	3	12	w.	Henry Nicoll.			
Elk Knob.	Lee.	3,243	6	73.4	+ 1.1	89	28	59	19	21	2.02	- 2.71	0.95	0.0	7	17	10	4	sw.	E. C. Williams.			
Galax.	Grayson.	2,300	11	68.1		89	28	39	23	43	3.24</												

MONTHLY WEATHER REVIEW.

AUGUST, 1909

TABLE 1.—Climatological data for August, 1909. District No. 3—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.					Precipitation, in inches.					Sky.			Observers.		
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmeted.	Number of rainy days.	Number of clear days.	Number of partly cloudy days.		
														.01 inch or more.	Number of cloudy days.	Prevailing wind direction.			
<i>Alabama—Cont'd.</i>																			
Riverton.....	Colbert.....	360	12	80.1	+ 1.7	103	28	57	21	37	1.66	- 2.13	0.78	0.0	4	18	9	4	ne.
Scottsboro ^a	Jackson.....	652	26	77.8	+ 0.2	97	28 ^t	56	26	35	1.33	- 2.49	0.56	0.0	8	5	20	6	sw.
Tuscumbia.....	Colbert.....	488	27	80.3	+ 2.0	99	28	61	23	34	0.76	- 2.81	0.46	0.0	3	16	3	12	se.
<i>Tennessee.</i>																			
Ashwood.....	Maury.....	725	31	78.3	+ 0.8	100	28	55	20	37	3.17	- 0.71	1.92	0.0	6	8	16	7	s.
Benton.....	Folk.....	880	23	79.0	+ 2.9	100	29	58	21	34	1.85	- 2.33	0.75	0.0	8	14	1	1	n.
Byrdstown.....	Pickett.....	1,026	15	76.0	+ 0.7	94	28	55	22	30	1.19	- 3.02	0.27	0.0	10	7	24	0	s.
Carthage.....	Smith.....	500	27			100	28				5.44	+ 0.99	1.55	0.0	9	25	5	1	se.
Cedar Hill ^a	Robertson.....	625	12	78.3	- 0.7	100	27	60	14 ^t	36				0.0					s.
Chattanooga.....	Hamilton.....	808	31	79.0	+ 2.5	95	29	63	23	29	1.19	- 2.56	0.53	0.0	9	12	14	5	ne.
Clarksville.....	Montgomery.....	520	40	80.0	+ 3.0	98	13	58	23	32	1.50	- 1.82	0.70	0.0	4	26	0	2	n.
Decatur.....	Melga.....	850	14	79.0	+ 2.1	100	28	56	23	36	3.54	- 1.38	2.20	0.0	5	20	9	2	nw.
Dickson.....	Dickson.....	800	13	78.0	+ 0.8	99	28	55	23	35	0.41	- 3.15	0.37	0.0	2	11	20	0	w.
Dover.....	Stewart.....	15	80.4	+ 2.7	102	28	52	22	40	1.49	- 2.05	1.15	0.0	2	23	8	0	s.	
Dunlap ^a	Sequatchee.....	726				98	28	57	23 ^t	37	4.89		1.80	0.0	8	23	8	0	s.
Elizabethton.....	Carter.....	1,575	20	76.4	+ 1.8	95	27	51	23	36	2.80	- 1.66	0.80	0.0	9	20	11	0	w.
Erasmus.....	Cumberland.....	1,850	13	73.0	+ 1.0	93	27	49	21 ^t	40	3.80	- 1.22	1.38	0.0	7	15	16	0	se.
Florence.....	Rutherford.....	560	22	77.8	+ 1.0	95	28	59	22	37	5.27	- 1.70	1.76	0.0	7	19	12	0	w.
Franklin.....	Williamson.....	655	18	79.0	+ 2.3	98	28	57	23	32	0.48	- 3.05	0.42	0.0	3	16	8	7	...
Harriman.....	Roane.....	841	14	77.8	+ 1.3	95	15 ^t	57	22 ^t	32	2.28	- 1.70	0.98	0.0	8	10	20	1	...
Hohenwald.....	Lewis.....	933	24	79.0	+ 3.5	100	27	57	20 ^t	39	0.56	- 3.33	0.45	0.0	3	10	21	0	se.
Iron City.....	Lawrence.....	12	78.2	+ 0.3	100	28	55	23	39	2.00	- 2.18	0.90	0.0	3	7	24	0	nw.	
Johnsonville.....	Humphreys.....	364	19	79.6	+ 1.0	102	28	55	23	36	0.89	- 2.53	0.86	0.0	3	23	7	1	nw.
Jonesboro.....	Washington.....	1,740	13	75.3	+ 1.6	92	15	50	23	35	2.33	- 2.42	1.18	0.0	4	22	9	0	w.
Knoxville.....	Knox.....	977	39	76.8	+ 2.1	93	28	60	24	27	3.17	- 0.83	1.92	0.0	7	10	16	5	ne.
Lebanon ^a	Wilson.....	522				100	13 ^t	61	6	35	1.40		0.90	0.0	3	16	11	4	n.
Lewisburg.....	Marshall.....	727	16	79.6	+ 2.0	100	27	53	22	42	0.57	- 4.18	0.33	0.0	5	19	11	1	ne.
Lynville.....	Giles.....	770	21	78.7	+ 1.4	95	15 ^t	60	23 ^t	31	1.49	- 2.65	0.73	0.0	3	13	18	0	s.
McMinnville.....	Warren.....	1,011	26	77.4	+ 2.0	95	28	56	23	32	4.11	- 0.05	2.17	0.0	6	20	11	0	n.
Maryville.....	Blount.....	1,050	15	77.9	+ 1.6	98	28	57	23	31	4.24	+ 0.09	1.50	0.0	8	19	11	1	e.
Mountain City.....	Johnson.....	2,436	13	69.7	+ 0.9	91	27	38	23	48	2.57	- 3.44	0.74	0.0	8	20	10	1	...
Nashville.....	Davidson.....	654	28	79.8	+ 1.8	96	15	61	22	28	2.73	- 0.74	1.22	0.0	4	19	11	1	ne.
Newport.....	Cooke.....	1,280	19	74.4	+ 1.2	88	13 ^t	57	23	25	4.80	+ 0.32	2.50	0.0	4	26	5	0	sw.
Palmetto.....	Bedford.....	770	16	80.0	+ 2.5	98	27	55	23	39	0.82	- 2.83	0.30	0.0	4	21	8	2	sw.
Pinewood.....	Hickman.....	3	78.8			100	27	52	23	40				0.0	2	22	4	5	s.
Pope.....	Perry.....	13	79.5	+ 0.9	101	28	55	23	41	1.10	- 2.07	0.60	0.0	2	30	1	0	s.	
Rogersville.....	Hawkins.....	1,150	25	74.9	+ 1.1	93	28	53	23	33	4.48	+ 0.30	2.56	0.0	11	18	10	3	e.
Rugby.....	Morgan.....	1,410	22	73.4	+ 0.3	94	28	51	23 ^t	38	2.36	- 1.97	0.95	0.0	5	11	14	6	nw.
Savannah.....	Hardin.....	442																	
Sevierville.....	Sevier.....	4	75.5			94	27 ^t	53	28	41	4.26		2.64	0.0	10	5	16	10	sw.
Sewanee.....	Franklin.....	2,000	15	75.5	+ 1.1	90	27	57	21	26	3.84	- 0.44	1.14	0.0	7	12	9	1	sw.
Sparta.....	White.....	920	4	76.9		94	28	56	23	30	9.51		4.50	0.0	9	14	9	3	w.
Springdale.....	Clairborne.....	1,058	7	73.2	+ 3.3	100	27	51	23	39	4.72	+ 0.15	4.00	0.0	6	19	8	4	w.
Springville.....	Henry.....	377	7	78.8	+ 1.2	100	28	51	23	40	0.03	- 2.42	0.03	0.0	1	29	1	1	n.
Tellico Plains.....	Monroe.....																		
Tullahoma.....	Coffee.....	1,075	21	78.1	+ 2.8	98	28	56	23	38	3.81	- 0.27	1.80	0.0	8	14	17	0	s.
Waynesboro.....	Wayne.....	753	23	78.8	+ 1.9	99	28	54	23 ^t	38	2.41	- 1.73	1.80	0.0	5	14	17	0	n.
Widerville.....	Henderson.....	12	80.4	+ 3.1	103	23	54	23	39	1.90	- 2.98	0.94	0.0	4	15	16	0	s.	
Yukon.....	Lincoln.....	850	14	78.4	+ 0.6	98	28	58	23	30	6.17	+ 2.40	1.06	0.0	7	10	21	0	w.
<i>Kentucky.</i>																			
Alpha.....	Clinton.....	15	76.0	- 0.9	96	12	51	22	33	2.00	- 2.59	0.70	0.0	6	18	8	5	w.	
Anchorage.....	Jefferson.....	700	8	75.8		98	28	51	21 ^t	37	2.32	- 1.53	0.0	0	5	12	16	3	nw.
Bardstown.....	Nelson.....	637	13	79.0	+ 1.4	102	28	55	23	36	1.35	- 2.17	0.77	0.0	5	23	3	5	ne.
Beattyville.....	Lee.....	650	6	75.3		98	28	50	23 ^t	37	5.88		1.84	0.0	6	11	2	18	w.
Beaverdam.....	Ohio.....	441	6	78.3		103	27 ^t	52	23	41	1.53		0.90	0.0	3	26	9	2	nw.
Berea.....	Madison.....	1,070	8	75.3		97	27	50	23	35	4.90		2.30	0.0	11	20	9	2	...
Bowling Green.....	Warren.....	500	19	80.3	+ 2.5	101	26 ^t	55	22	38	2.02	- 1.44	1.24	0.0	4	19	8	4	n.
Burnside.....	Pulaski.....	539	19			102	27 ^t	55	22	39	3.94	- 1.18	1.00	0.0	7	22	4	5	...
Cadiz.....	Metcalfe.....	7	80.4			102	27 ^t	55	22	39	0.21		0.13	0.0	3	24	7	0	...
Calhoun.....	McLean.....	397	6	80.4		104	28	55	23 ^t	35	1.85		1.89	0.0	5	19	12	0	sw.
Catlettsburg.....	Boyd.....	544	16	77.4	+ 1.4	97	28	50	22	41	2.10	- 1.50	1.14	0.0	10	26	2	3	nw.
Earlington.....	Hopkins.....	370	20			103	28	55	23	49	1.13	- 2.05	0.63	0.0	3	30	1	0	sw.
Edmonton.....	Pulaski.....	1,177	15	74.7	+ 0.7	95	28	51	23	32	4.73	+ 0.84	1.34	0.0	0	11	21	6	e.
Eubank.....	Pendleton.....	530	20			102	27 ^t	55	22	37	3.42	- 2.04	1.46	0.0	8	17	6	8	e.
Farmers.....	Rowan.....	668	4	73.9		98	28	48	22	37	5.21		3.14	0.0	9	14	12	5	n.
Frankfort.....	Franklin.....	560	19	75.8	+ 1.1	94	28	54	23	30	1.51	- 1.92	0.79	0.0	7	16	6	9	nw.
Franklin.....	Simpson.....	691	16	79.3	+ 2.4	100	27 ^t	53	22	35	1.3								

TABLE 1.—Climatological data for August, 1909. District No. 3—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.					Precipitation, in inches.					Sky.					Observers.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmelted.	Number of rainy days, 0.1 inch or more.	Number of partly cloudy days.	Number of cloudy days.	Precip. wind direction.	
<i>Indiana—Cont'd.</i>																			
Cambridge City	Wayne.	941	10	72.2	0.0	93	8†	44	22	40	4.49	+ 1.44	1.58	0.0	9	23	0	n.	Charles Lemberger.
Columbus	Bartholomew.	632	18	75.8	+ 2.6	99	28	46	22	43	1.31	- 2.23	0.44	0.0	7	26	1	4 sw.	John A. Perry.
Connersville	Fayette.	769	20	74.2	+ 2.4	94	8†	46	23	43	1.30	- 1.51	0.37	0.0	7	21	9	1 ne.	C. C. Hibbs.
Delphi.	Carroll.	663	16	73.6	+ 1.9	94	8†	46	21	41	4.93	+ 1.83	1.60	0.0	10	22	2	7	R. L. Higginbotham & Son
Eminence.	Morgan.	782	74.2	94	15	45	21	35	2.67	2.67	1.41	0.0	5	26	5	0	sw.	Dr. E. E. Kelso.	
Evansville.	Vanderburg.	386	10	80.2	+ 3.2	98	28	58	30	25	0.41	- 2.83	0.23	0.0	5	19	12	0 ne.	U. S. Weather Bureau
Farmerburg	Sullivan.	76.8	12	95	12†	50	33	37	1.52	1.52	1.26	0.0	2	24	5	2	e.	Maurice Yeager.	
Farmland.	Randolph.	1,101	20	73.6	+ 2.4	89	8†	50	21	30	3.19	- 0.53	1.17	0.0	8	19	3	9 e.	W. J. Davisson.
Greenfield.	Hancock.	905	74.2	91	28	50	21	31	3.22	3.22	1.45	0.0	5	2	28	1	w.	W. C. Goble.	
Greensburg.	Decatur.	954	5	76.0	+ 1.1	95	25†	51	30	34	1.80	- 0.18	0.90	0.0	4	26	4	1 ne.	Charles H. Ewing.
Heltonville.	Lawrence.	76.2	12	99	28	43 ^d	22	45 ^c	2.17	2.17	1.09	0.0	5	2	24	4	e.	E. L. Palmer.	
Huntingburg.	Dubois.	77.0	11	100	27	45 ^c	31	42 ^c	2.22	2.22	0.74	0.0	5	2	24	4	sw.	H. Dufendach.	
Huntington.	Huntington.	741	11	73.9	+ 0.2	94	25	50	22	34	4.21	+ 1.03	1.80	0.0	8	20	5	6 nw.	Charles McGrew.
Indianapolis.	Marion.	823	23	74.9	+ 1.3	93	28	53	21	37	2.80	- 0.53	1.20	0.0	9	14	8	2 ne.	U. S. Weather Bureau.
Jeffersonville.	Clark.	455	12	77.8	+ 1.6	99	28	58	22	33	1.17	- 2.20	0.68	0.0	5	21	8	2 ne.	John C. Loomis.
Judyville.	Warren.	74.0	12	93	27	44	21	35	4.28	4.28	2.07	0.0	7	24	7	7 s.	D. R. Warrick.		
Kokomo.	Howard.	840	11	72.2	- 0.9	89	8†	47	21†	33	6.75	+ 3.83	3.15	0.0	7	14	11	6 s.	John W. Doty.
Lafayette.	Tipppecanoe.	617	22	75.0	+ 2.3	93	8†	51	21†	31	6.77	+ 3.61	4.03	0.0	9	22	2	7 se.	W. J. Jones, Jr.
Logansport.	Cass.	620	17	75.4	+ 2.0	97	8†	48	21	38	4.11	+ 1.74	1.60	0.0	8	21	3	7 e.	Charles Massena.
Madison.	Jefferson.	460	11	77.6	+ 1.3	98	28	51	21	39	2.02	- 1.38	0.94	0.0	6	17	13	1 e.	J. Cooperider.
Marengo.	Crawford.	363	19	75.0	- 0.1	95	27†	43	31	43	1.72	- 2.43	1.10	0.0	5	20	10	1 sw.	J. M. Johnson.
Marion.	Grant.	814	14	73.4	+ 1.1	93	28	48	21	35	3.37	+ 0.52	1.13	0.0	10	23	4	4 n.	James F. Hood.
Markle.	Huntington.	814	10	71.8 ^c	+ 0.3	94	27	44	22	40 ^c	1.50	- 1.43	0.50	0.0	5	15	11	5 nw.	I. S. Shideler.
Mausy.	Rush.	980	21	73.4	+ 2.8	94	28	45	21†	43	2.12	- 0.67	0.93	0.0	5	18	7	6 e.	E. Kirkwood.
Moore's Hill.	Dearborn.	74.9	12	94	8†	49	20	32	39	1.73	0.73	0.0	0.0	9	28	2	1 e.	W. S. Bigney.	
Mount Vernon.	Posey.	410	15	79.6 ^a	+ 2.6	103 ^b	28	53 ^d	23	37	0.14	- 3.32	0.14	0.0	1	30	1	0 ne.	C. M. Spencer.
Paoli.	Orange.	611	5	75.8	- 0.8	97	28	46	21	35	4.52	- 1.49	0.97	0.0	6	19	12	0 ne.	James A. Gillum.
Princeton.	Gibson.	481	19	75.5	+ 3.4	102	28	53	22†	38	1.65	- 0.99	1.20	0.0	2	31	0	0 ne.	Elisha Jones.
Richmond.	Wayne.	972	17	72.0	+ 1.0	91	8†	47	21†	39	4.27	+ 0.04	1.34	0.0	8	17	13	1 e.	Walter Vossler.
Rochester.	Fulton.	775	7	73.7	28	89	8†	52	21†	35	2.67	1.12	0.0	0	7	18	8	5 s.	J. P. Keith.
Rockville.	Parke.	723	15	75.1	+ 2.0	92	14†	53	30	37	3.33	+ 0.83	0.80	0.0	8	16	10	5 s.	Dr. W. N. Wirt.
Rome.	Perry.	370	12	79.0	28	104	27	53	22	41	0.88	- 0.48	0.48	0.0	5	26	5	0 w.	Adam Ansprach.
Salamonie.	Jay.	72.0	12	92	8	46	21†	38	5.36	5.36	1.54	0.0	8	15	5	10 se.	C. V. Skinner.		
Salem.	Washington.	717	11	75.4	+ 0.8	98	28	47	22	42	1.18	- 2.32	0.40	0.0	5	20	11	0 w.	E. S. Allen.
Scottsburg.	Scott.	570	12	77.7	+ 1.3	98	28	53	22†	36	1.58	- 1.34	0.49	0.0	6	17	14	0 nw.	F. H. Park.
Seymour.	Jackson.	610	14	77.0	+ 2.4	98	28	49	23	42	1.56	- 1.44	0.85	0.0	7	14	17	0 sw.	J. R. Blair.
Shelbyville.	Shelby.	498	11	78.4	+ 2.1	95	12†	53	21	35	3.90	1.53	0.0	0	10	11	20	0 e.	B. F. Crouch.
Terre Haute.	Vigo.	612	19	75.0	28	94	28	48	21	35	3.90	1.53	0.0	0	4	21	9	1 ne.	R. G. Gillum.
Veedersburg.	Fountain.	525	19	77.2	+ 1.6	96	16	43	21	42	2.42	0.96	0.0	0	5	26	4	2 e.	L. A. Culver.
Vevay.	Switzerland.	431	10	74.6	- 2.6	104	28	53	22	38	2.05	- 1.40	0.90	0.0	6	9	20	2 sw.	Mrs. Frederica Boerner.
Vincennes.	Knox.	494	7	77.6	+ 0.6	98	28	54	21	31	1.11	- 2.49	0.55	0.0	3	23	5	3 e.	G. V. List.
Washington.	Davies.	526	20	72.9	+ 1.5	90	8†	49	21†	30	4.39	+ 1.20	2.14	0.0	5	14	17	0 nw.	H. B. Turrell.
Whitestown.	Boone.	768	18	75.3	+ 2.4	97	27	48	21	39	1.67	1.04	0.0	0	6	14	0	0 nw.	C. A. Stevenson.
Winona Lake.	Kosciusko.	500	9	78.6	+ 3.1	95	28	49	21	35	2.67	- 0.68	1.10	0.0	4	15	16	0 ne.	Rev. A. A. Young.
Worthington.	Greene.	531	17	79.2	+ 2.4	101	28	55	30	33	1.01	- 2.26	0.69	0.0	3	25	6	0 s.	C. A. Geckler.
Albion.	Edwards.	359	33	79.6	+ 2.3	96	12†	48	21	38	1.19	- 1.75	1.11	0.0	2	18	12	1 ne.	B. F. Michels.
Cairo.	Alexander.	720	19	76.6	+ 2.3	97	28	54	21†	41	0.46	- 3.01	0.38	0.0	2	25	6	0 n.	U. S. Weather Bureau.
Charleston.	Coles.	421	9	82.0	+ 3.4	105	28	49	23	45	1.05	- 2.05	0.65	0.0	4	25	4	2 ne.	Jacob B. Dasey.
Equality.	Gallatin.	495	18	79.2	+ 3.1	102	28	49	23	45	1.05	- 2.05	0.65	0.0	1	29	3	0 se.	Dr. L. W. Gordon.
Fairfield.	Wayne.	495	23	79.1	+ 4.3	102	28	48	23	43	0.09	- 3.35	0.09	0.0	1	29	3	0 se.	George A. Tromly.
Flora.	Clay.	495	23	79.1	+ 4.3	102	28	48	23	43	0.09	- 3.00	0.04	0.0	2	17	14	0 sw.	Jos. S. Peak.
Golconda.	Pope.	500	30	81.3	+ 3.5	104	28	55	22	40	0.08	- 3.00	0.04	0.0	2	17	14	0 sw.	Dr. D. Lawrence.
Hoopston.	Vermillion.	715	7	73.8	28	90	28	48	21	39	5.28	2.60	0.0	0	7	25	5	1 s.	S. F. Hoskinson.
McLeansboro.	Hamilton.	462	26	79.2	+ 3.4	99	28	50	23	40	0.31	- 3.14	0.20	0.0	2	23	6	2 s.	C. C. Judd.
Martinsville.	Clark.	630	20	75.4	+ 3.5	100	12	50	21	45	1.03	- 2.10	0.75	0.0	2	21	7	3 s.	G. M. Daugherty.
New Burnside.	Johnson.	556	14	78.3	+ 0.9	101	28	52	22	38	0.15	- 2.41	0.15	0.0	1	26	2	3 s.	George Harris.
Olney.	Richland.	486	19	79.6	+ 2.9	101	28	52	23†	46	0.81	- 1.88	0.46	0.0	3	15	14	2 sw.	Victor E. Phillips.
Palestine.	Crawford.	500	26	79.0	+ 4.7	100	28	51	21	36	0.73	- 2.58	0.40	0.0	2	20	11	0 ne.	Alexander Charley.
Paris.	Edgar.	600	12	76.0	+ 0.6	95	14†	48	21	37	1.18	- 1.35	0.78	0.0	4	22	9	0 ne.	H. W. Twymann.
Philo.	Champaign.	700	24	75.2	+ 2.4	96	12†	47	21	38	2.88	+ 0.03	2.66	0.0	3	25	5	1 se.	H. A. Burr.
Rantoul.	do.	768	18	76.3	+ 2.4	97	12†	48	21	37	1.81	- 1.46	1.04	0.0	6	25	5	1 sw.	Wm. Breiner.
Robinson.	Crawford.	500	9	78.6	+ 3.2	100	28	51	21	43	0.80	- 2.98	0.42	0.0	3	28	2	1 e.	O. A. Woodworth.
Summer.	Lawrence.	459	7	76.8	28	98	45	23	42	0.47	0.0	0.37	0.0	2	30	1	0 nw.	O. A. Fyffe.	
Tuscola.	Douglas.	644	10	77.0	28	100	45	21†	32	2.37	0.0	0.0	0	4	10	21	0 ne.	E. W. Lester.	
Urbana.	Champaign.	725	7	75.4	28	94	14	50	21†	32	2.37	0.0	0.0	0	4	15	16	0 ne.	Prof. J. G. Mosier.

* Precipitation included in that of the next measurement.

• Temperature

TABLE 2.—*Daily precipitation for August, 1909. District No. 3, Ohio Valley.*

TABLE 2.—*Daily precipitation for August, 1909. District No. 3—Continued.*

Stations.	River basins.	Day of month.																																	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Total		
Ohio—Cont'd.																																			
Bladensburg.	Muskingum.																																		5.58
Cadiz.	Ohio.																																	2.93	
California.	do.																																		
Camp Dennison.	Muskingum.																																	2.84	
Canal Dover.	Miami.	.06																																3.70	
Canton||.	Muskingum.																																	3.33	
Cardington.	Scioto.																																	2.68	
Chillicothe||.	do.																																		
Cincinnati.	Ohio.	.02																																1.82	
Circleville. |||.	Scioto.	.07																																2.14	
Clarington.	Ohio.	.03																																3.27	
Clarksville.	Miami.	.23																																3.66	
Columbus (1).	Scioto.	.02																																2.53	
Columbus (2).	do.	.05																																2.43	
Columbus Reserv. (3).	Muskingum.	.35																																3.31	
Coshcocton||.	Muskingum.																																		
Dayton (1)||.	Miami.																																	3.41	
Dayton (2)||.	do.																																		
Delaware.	Scioto.																																	3.40	
Demos.	Ohio.	T.																																2.59	
Frankfort.	Scioto.																																	2.26	
Garretttsville.	Mahoning.	.02																																2.75	
Granville.	Muskingum.	T.																																6.13	
Gratiot.	do.	.40																																5.95	
Green.	Ohio.	.88																																4.24	
Greenhill.	Muskingum.	.31																																1.93	
Greenville||.	Miami.																																	2.23	
Hillsboro.	Scioto.	.04																																4.30	
Ironton.	Ohio.	.06																																3.45	
Jacksonburg.	Miami.																																	4.60	
Kenton.	Scioto.	.05	.01																															2.60	
Killbuck.	Muskingum.																																	4.85	
Lancaster.	Scioto.	.02																																4.91	
Lawshe.	Ohio.	.84	.03																															5.33	
McConnellsville.	Muskingum.																																	4.28	
Marietta.	Ohio.	.05																																3.85	
Marion.	Scioto.																																	5.05	
Milfordton.	Muskingum.																																	7.87	
Milligan.	do.																																	3.54	
Rittman.	Muskingum.																																	5.27	
Shenandoah.	do.																																	3.21	
Sidney.	Miami.	T.																																5.00	
Somerset||.	Muskingum.	1.10	1.14																														4.63		
Springfield.	Miami.	.01																																4.35	
Summerfield.	Ohio.	.05																																2.84	
Thurman.	do.	.74																																1.93	
Urbana.	Miami.																																	2.10	
Warren.	Mahoning.	T.																																2.47	
Waverly||.	Scioto.	17	.01																														2.24		
Waynesville.	Miami.																																	4.22	
Wooster.	Muskingum.	.32																																5.21	
Youngstown||.	Mahoning.																																	1.40	
Zanesville||.	Muskingum.																																	3.78	
Virginia.																																			
Big Stone Gap.	Tennessee.	.55																																1.53	
Blacksburg.	Kanawha.	.90	1.30																														3.12		
Burks Garden.	Tennessee.	.28	1.11	T.																													3.09		
Elk Knob.	do.	.95																																2.02	
Galax.	Kanawha.	1.03	.27	.23	T.																												3.24		
Ivanhol||.	do.	* 1.13	1.12	.02	.05	.01	.01																									3.14			
Marion.	Kanawha.	.08	T.																														2.31		
Max Meadows*.	Kanawha.																																	5.44	
Mendota||.	Tennessee.																																4.76		
Radford||.	Kanawha.	1.10	1.40																														4.34		
Sparks Ferry||.	Tennessee.																																2.49		
Wytheville.	Kanawha.	.48	.34	.05	.03	.01	.01																												
North Carolina.	Tennessee.	.51	.15	.07	.15																														
Andrews.		.67	.12	T.	.04	.03	.01																										4.29		
Asheville.	do.	1.52	.03	.20	.10	.32	.25																									4.58			
Banners Elk.		.20	.05	.15	.60	.20	.04	.40	.05																						5.44				
Brevard.	do.																																4.39		
Bryson City||.	do.																																		

TABLE 2.—*Daily precipitation for August, 1909. District No. 3—Continued.*

Stations.	River basins.	Day of month.																														Total.		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
Alabama—Cont'd.																																		
Madison.	Tennessee.	1.25	.62	.78	.50	.75					T.	T.	T.	.06		T.	.05																	2.55
Riverton.	do.	.15	.09	.06	.08	.10																											1.66	
Scottsboro.	Tennessee.																																	1.33
Tuscumbia.	do.																																	0.76
Tennessee.																																		
Ashwood.	Tennessee.		.50	1.93		.20		.30			T.						.30		T.		T.													.06
Benton.	do.	.75	T.	.25		.30		.10	.10									.07		.22	.58												1.85	
Bird's Bridge||	do.	.04	.34																															1.50
Bluff City||	do.	.74	.54	T.	.65																													2.85
Byrdstown.	Cumberland	.27	.24	T.	.05			.13			.08	.04					.20	.06	.04	.08												1.19		
Carthage||	do.	.79	T.	.07	.03			.30	T.	.03		1.08						1.55		1.09	.01											5.44		
Center Point.	Tennessee.							.91	.10																								1.01	
Cedar Hill.	Cumberland																																	
Celina||	do.	T.																																1.74
Charleston||	Tennessee.	.05	.02	.40				.06										.15															2.58	
Chattanooga.	do.	.32	.51	.02	T.			.04	T.									.06		.02	.19	.01											1.19	
Clarksville.	Cumberland	.70																																1.50
Clinton||	Tennessee.	.25	.05	.10	.20	.35		T.	.12									.15		.05	.55	T.	.25	.10								0.05		
Dandridge||	do.		.04	.06	.14																												2.40	
Decatur.		.20																																3.54
Dickson.	Cumberland																																	0.41
Dover.	do.	T.																																1.49
Dunlap.	Tennessee.	1.34		.10		.29			.08																								5.2	
Elisabethton||	do.	.80		.10		.60			.05																							4.89		
Erasmus.	Cumberland	.13	T.	.42	.39	T.	T.	T.																								2.80		
Florence.	do.	.58	.03	T.	.15			.17																								3.80		
Franklin.	do.	.03	T.	.03	.42			T.																									5.27	
Hall's Hill||	do.	.28		.08																													1.44	
Harriman.	Tennessee.																																	2.29
Hohenwald.	do.																																	0.56
Iron City.	do.	T.																																2.00
Johnsonville.	do.	.01		.86	T.	.45			.02																								0.89	
Jonesboro.	do.																																	2.33
Kingston||	do.	.40		.20	.09	.09	T.																										1.46	
Knoxville.	do.	.08	.05	.20		.09	T.																										3.17	
Lebanon.	Cumberland		T.	.38	.08	T.																										1.40		
Lewisburg.	do.																																	0.57
Loudon||	do.	.10		.10																													1.40	
Lynnnville.	do.																																	1.49
McGhee||	do.	.25		.20																													3.24	
McMinnville.	Cumberland	.70		.27	.32			.11																									4.11	
Maryville.	Tennessee.	.53		.55	.16			.10	.15																								4.22	
Mountain City.	do.	.57	.05																														2.57	
Nashville.	Cumberland	.19	T.	.32	T.																												2.73	
Newport.	Tennessee.																																	4.80
New River||	do.																																	4.86
Palmetto.	Cumberland	.80																																0.82
Pinewood.	do.																																	1.10
Pope.	do.																																	4.48
Rogersville.	do.	.32	.06	.06																													2.36	
Rugby.	Cumberland		T.	.44	.90	T.																											4.72	
Savannah.	Tennessee.	.30		.69		.08																										4.26		
Sevierville.	do.																																3.84	
Sewanee.	Cumberland	1.95	.41	.50	.20	T.	.10																								9.51			
Sparta.	Tennessee.																																4.72	
Springdale.	do.																																0.03	
Tazewell||	do.																																10.96	
Tellico Plains.	do.																																3.81	
Tulahoma.	do.																																4.07	
Walling||	Cumberland	.22	.40	.09	20	1.01			.20		.10																				1.66			
Waynesboro.	Tennessee.																																2.41	
Wilderness.	do.																																1.90	
Yukon.	do.																																6.17	
Kentucky.	Cumberland		T.																															

TABLE 2.—*Daily precipitation for August, 1909. District No. 3—Continued.*

MONTHLY WEATHER REVIEW.

AUGUST, 1909

TABLE 3.—Maximum and minimum temperatures at selected stations, August, 1909. District No. 3, Ohio Valley.

Date.	Pennsylvania.						West Virginia.						Ohio.						Cincinnati.		Columbus.		Dayton.					
	Greenville.		Pittsburg.		Charleston.		Elkhorn.		Elkins.		Glenville.		Huntington.		Morgantown.		Parkersburg.		Wheeling.		Canton.		Cincinnati.		Columbus.		Dayton.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
1..	88	52	84	68	90	68	76	56	76	62	86	67	85	70	78	64	82	68	86	66	85	61	85	66	87	67	89	65
2..	87	57	85	69	86	68	74	58	80	60	88	61	86	67	83	63	84	65	89	64	83	61	86	69	84	68	89	62
3..	84	62	84	69	85	65	73	62	77	58	88	58	86	63	80	63	83	63	87	63	83	61	86	68	83	67	85	63
4..	84	49	82	64	86	62	81	59	81	51	89	56	87	60	82	59	83	59	85	55	80	56	82	68	85	65	86	63
5..	87	55	84	62	85	68	83	59	81	55	85	59	89	65	81	60	82	62	87	60	81	61	88	69	88	67	91	66
6..	89	53	84	63	87	68	85	56	90	60	89	64	86	58	86	62	83	63	83	53	86	68	85	63	89	61	89	61
7..	92	53	91	67	88	66	86	60	86	57	92	66	84	55	85	62	89	66	81	59	89	68	88	63	94	59	94	63
8..	92	55	90	67	90	68	86	60	88	60	94	67	94	65	90	66	93	66	92	62	92	69	93	68	94	63	94	64
9..	90	56	89	71	92	68	88	69	86	59	94	64	93	68	90	66	91	67	93	68	98	64	90	70	90	62	94	72
10..	81	55	81	64	90	72	83	62	82	57	89	68	89	73	82	66	83	67	87	68	80	56	86	70	83	62	89	72
11..	77	44	79	57	87	62	84	54	81	51	87	55	88	58	83	53	81	58	86	53	76	54	83	63	80	57	84	56
12..	73	59	77	64	86	64	83	59	73	59	78	62	85	60	79	63	73	64	81	56	77	58	86	67	73	62	87	65
13..	82	57	83	66	80	68	74	61	85	61	88	62	82	66	89	64	83	66	89	61	84	59	85	73	82	66	84	67
14..	86	61	85	69	82	69	81	63	83	65	86	67	89	71	92	68	83	69	89	61	84	64	90	72	88	70	86	69
15..	81	67	76	68	86	78	86	66	75	67	81	68	90	71	77	74	79	71	81	70	79	69	87	72	78	68	90	72
16..	89	67	78	67	87	70	83	66	82	63	88	70	90	69	83	70	87	68	86	70	84	68	86	66	90	65	86	65
17..	79	58	77	63	85	66	81	57	75	60	81	65	83	66	82	61	77	65	78	63	75	63	83	65	86	63	87	65
18..	78	63	75	63	80	65	77	57	70	61	78	73	83	63	74	61	75	64	78	61	74	62	79	63	84	61	79	58
19..	82	54	76	62	82	65	78	55	77	58	84	60	85	55	84	59	82	63	85	64	88	60	84	63	82	63	86	58
20..	78	57	73	58	85	64	80	54	82	55	86	56	88	58	80	55	84	57	82	58	73	59	84	66	78	61	82	63
21..	73	43	73	55	77	59	78	56	73	52	79	55	79	54	72	50	75	52	78	52	71	52	76	59	75	56	80	51
22..	68	35	78	52	81	53	77	47	79	48	80	50	83	53	81	46	79	53	80	48	75	52	80	57	80	53	83	47
23..	88	41	82	54	83	58	81	47	82	47	86	51	88	55	84	51	84	53	85	52	80	47	85	58	85	57	86	50
24..	91	48	86	58	86	56	81	51	85	50	89	54	90	57	87	55	88	59	89	52	84	54	88	62	90	57	90	57
25..	95	56	87	67	87	64	83	57	80	54	86	56	89	57	92	59	88	63	90	56	87	62	92	66	94	60	94	60
26..	87	60	84	68	89	66	84	57	82	57	89	62	91	62	84	68	88	69	87	63	86	68	87	70	88	71	92	68
27..	88	60	86	66	90	67	88	61	87	60	92	63	95	66	96	68	91	68	88	68	86	64	91	72	91	70	90	69
28..	81	58	81	60	82	62	88	56	86	56	93	63	96	56	97	71	82	64	94	66	95	66	95	73	98	70	95	65
29..	77	59	77	63	81	70	87	54	73	56	88	66	82	70	78	62	84	64	82	66	73	64	87	67	88	62	84	68
30..	75	42	75	53	86	55	80	49	77	48	83	50	81	57	76	48	76	55	78	52	71	50	78	60	75	79	70	53
31..	81	42	79	61	84	59	81	53	81	53	85	54	86	54	81	57	81	58	82	57	83	51	84	59	81	52	83	48
Mns	83.5	54.4	81.3	72.3	85.6	65.1	81.7	57.6	80.6	56.9	86.2	60.8	87.6	63.4	82.5	60.9	83.0	63.0	84.0	60.2	80.1	50.3	85.7	66.4	83.3	63.6	87.3	61.5

Date.	Ohio.						Virginia.						Tennessee.						West Virginia.						Kentucky.			
	Marion.		Waverly.		Big Stone Gap.		Wytheville.		Asheville, N. C.		Decatur, Ala.		Chattanooga.		Jonesboro.		Knoxville.		Nashville.		Palmetto.		Sparta.		Waynesboro.		Beattyville, Ky.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.		
1..	94	62	87	67	82	68	80	64	83	65	89	70	84	72	87	66	82	72	88	74	88	73	84	71	91	71	82	67
2..	94	60	88	64	79	68	66	62	72	63	89	72	84	70	85	64	85	72	88	70	88	69	87	71	92	68	87	67
3..	91	62	86	62	79	62	64	58	71	62	89	70	81	70	80	63	84	68	88	70	87	66	88	69	90	62	88	62
4..	87	58	87	61	81	61	78	58	81	61	89	70	83	72	84	61	82	68	89	70	88	66	86	60	90	64	84	64
5..	90	62	88	60	83	66	83	60	89	65	90	70	88	68	91	65	87	69	91	68	88	66	88	65	91	64	84	64
6..	90	60	88	59	84	64	83	60	85	62	87	70	86	63	88	63	88	68	87	60	86	67	85	68	86	65	91	61
7..	94	58	89	61	84	62	85	61	86	61	87	71	84	68	90	61	89	66	89	66	88	66	88	65	88	67	95	65
8..	94	60	94	65	84	64	85	63	82	61	87	71	84	68	90	61	89	66	89	66	88	66	88	65	88	67	95	65
9..	90	64</td																										

TABLE 3.—*Maximum and minimum temperature at selected stations, August, 1909. District No. 3—Continued.*

Date.	Kentucky.												Indiana.												Philo. Ill.			
	Bowling Green. ¶¶		Erlington.¶¶		Greensburg.¶¶		Lexington.		Louisville.		Mayaville.¶¶		Williamsburg. ¶¶		Butlerville.		Evansville.		Indianapolis.		Kokomo.		Rockville.		Worthington.			
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.				
1...	89	69	82	.....	85	70	76	67	82	68	86	.....	88	70	88	67	83	72	86	63	86	58	85	62	88	61
2...	94	67	93	.....	88	64	82	67	89	69	90	.....	90	71	88	64	89	70	88	66	87	60	88	65	89	65
3...	92	67	94	.....	87	65	81	65	86	70	88	.....	85	67	86	67	88	70	84	68	85	64	86	68	90	68
4...	93	68	95	.....	79	65	84	67	88	72	90	.....	83	67	88	68	89	71	84	68	84	64	86	70	90	70
5...	94	67	95	.....	91	64	87	63	92	71	92	.....	90	65	90	66	92	72	88	70	86	67	87	68	89	65
6...	89	67	90	.....	89	65	85	63	89	70	89	.....	89	65	89	65	89	72	85	67	86	61	86	65	86	64
7...	96	64	94	.....	91	64	87	68	91	69	93	.....	90	66	91	65	92	69	91	65	87	58	87	66	88	64
8...	96	67	92	.....	92	65	90	70	92	71	96	.....	89	60	95	64	92	74	91	68	89	61	90	68	91	63
9...	97	69	94	.....	91	65	89	70	93	73	93	.....	91	68	92	66	93	73	90	71	88	68	90	69	91	64
10...	97	70	96	.....	90	65	86	71	92	77	89	.....	87	68	92	72	94	76	87	70	85	67	85	70	85	70
11...	98	70	95	.....	89	66	82	62	88	68	87	.....	90	67	90	62	91	72	84	63	83	57	86	66	88	67
12...	98	65	98	.....	92	59	85	66	93	70	89	.....	90	63	88	66	95	74	88	67	86	65	88	70	92	68
13...	97	71	98	.....	95	61	82	70	89	73	93	.....	86	66	86	68	88	76	82	72	88	55	85	72	92	71
14...	98	68	98	.....	93	66	87	69	94	71	92	.....	88	69	88	71	93	74	89	71	85	68	92	71	93	72
15...	98	71	99	.....	94	68	89	71	94	74	89	.....	89	70	90	71	95	78	89	70	88	74	90	74	95	71
16...	96	73	92	.....	90	73	87	69	94	71	90	.....	90	71	90	66	94	72	89	67	85	62	87	67	90	65
17...	91	68	92	.....	84	66	80	63	85	68	86	.....	85	67	83	60	84	71	77	62	76	59	82	60	82	58
18...	89	67	89	.....	84	60	78	61	81	63	82	.....	84	64	80	60	84	70	79	62	78	58	80	62	85	61
19...	93	61	92	.....	84	56	81	61	85	65	89	.....	83	60	80	57	87	67	84	59	83	58	85	60	86	55
20...	94	61	94	.....	88	53	83	63	90	64	90	.....	90	60	85	63	90	68	79	59	77	77	79	65	86	64
21...	90	58	88	.....	80	55	74	56	80	58	81	.....	82	61	80	53	82	60	77	53	78	47	78	51	81	49
22...	92	55	92	.....	88	48	79	55	83	58	86	.....	90	55	84	52	84	60	80	56	79	47	79	56	83	52
23...	95	57	95	.....	90	53	85	60	90	61	91	.....	88	57	90	54	88	60	84	60	83	50	85	56	87	52
24...	98	60	97	.....	92	55	86	65	92	66	94	.....	90	53	90	63	90	69	88	65	86	56	89	64	90	55
25...	99	64	97	.....	95	59	89	66	98	76	95	.....	92	60	96	68	95	76	88	68	84	59	83	68	91	65
26...	101	67	100	.....	95	63	87	70	93	73	92	.....	95	62	91	68	96	73	87	69	86	66	86	67	88	66
27...	101	70	100	.....	97	67	90	71	95	75	96	.....	93	66	93	70	97	76	91	65	89	67	90	73	92	72
28...	101	70	103	.....	99	67	92	71	99	75	99	.....	92	67	95	71	99	76	93	69	88	66	92	69	95	65
29...	90	70	85	.....	82	67	80	64	85	66	87	.....	85	66	88	67	84	67	79	60	77	59	78	60	91	62
30...	93	57	90	.....	84	51	75	57	81	61	82	.....	80	60	82	57	85	58	77	56	77	50	78	53	82	56
31...	96	60	92	.....	91	50	81	59	88	61	76	.....	84	63	88	52	89	63	83	56	81	52	83	57	86	55
Mns	94.9	65.7	93.9	89.3	61.9	83.8	65.2	89.3	68.6	89.3	88.2	64.5	88.5	64.1	90.2	70.3	85.0	64.8	83.7	60.6	85.2	65.0	88.1	64.7	88.5	61.9